

expression "means". Applicant has taken the rejection to mean that the Examiner would prefer a functional word preceding the expression "means", and this has been done. In addition, the reference to the "and the like" in claim 19 has been removed.

Claim 1 has been amended to define more clearly the flat center cylindrical section with the stiffening flanges at each outer edge of the flat surface section with the stiffening flanges projecting radially outwardly and downwardly around the semi-circular saddle at an obtuse angle to the interior of the flat center cylindrical surface section. This construction of the flanges, which are really continuations of the saddle surface, is defined in the present specification at page 8, line 10.

Claim 2 has been amended to recite the cable support as including a stem extending tangent to one side of the saddle, and that the saddle has a diameter about half the height of the stem. Stated another way, the stem is about twice the diameter of the saddle.

Claim 4 has been amended to define the semi-circular saddle as having a tip extending upwardly generally parallel to the stem, with holes in the tip and the base of the stem adapted to receive a tie to close the saddle without touching the cable.

Claim 6 has been amended to depend from claim 4 and recites the plurality of holes in the stem clear of the saddle for accommodating various kinds of fasteners.

Claim 12 has been amended to recite that the said attachment means include means to swing the support about a vertical axis, whereby the axis of the semi-circular saddle may be oriented in substantially any generally horizontal direction.

Method claim 19 has been amended to replace the reference to category 5 and fiber optic cable with the more generic low voltage communications cable, and in the process deleting the expression "and the like". The obtuse angle lateral edges are recited in claim 19, and, more importantly, the spacing of the saddle

along the run is defined so that the run sags between the saddles no more than about 30 cm below the saddles.

Method claim 20 has been amended again to emphasize that it is the spacing of the saddles which is recited.

Claim 29 has been amended to depend from claim 19, while claim 32 has been amended to include most of the limitations of claim 33 which has been canceled. Claim 32 sets forth the step of providing a plain hole and a thread form hole in each saddle, whereby two saddles may be secured with a single threaded fastener passing through a plain hole of one and the thread form hole in the other to clamp both saddles when the fastener is tightened.

Added claim 34 is a combination claim which is drawn to a building structure having a projecting edge, the cable support, and an intermediate fastener which secures the stem of the cable support and grips the projecting edge of the building structure. The structures illustrated are typified by edges which the intermediate fastener grips either by its spring steel action or by a screw clamp. Typical of such is the flange edge 86 shown in Figure 7 and described in the specification beginning on page 9, line 10. Another example is the C-purlin clip or the Z-purlin clip and the edge of the flange 119. Such edges are recited, for example, at page 11, line 12 and line 17.

The ability to swing the axis of the saddle is set forth in claim 35, while the two types of intermediate edge gripping fasteners are recited in claims 36 and 37. Claim 38 also recites the relative pivoting movement between the intermediate fastener about a generally vertical axis.

Claim 39 defines the plurality of vertically aligned and spaced generally circular fastener holes for securing the support, with the semi-circular saddle including a projecting tip portion opposite the stem with the plurality of generally circular holes being horizontally clear of the saddle and its projecting tip portion.

This is shown in Figure 2 where the aligned holes 41, 42 and 43 are well clear of the opposite tip and, of course, the semi-circular saddle.

Claim 40 sets forth the relative dimensions of the semi-circular saddle and the extending stem. This particular claim recites the same relationship set forth in amended claim 2 but with different language.

Claim 41 recites the obtuse angle stiffening flanges, again as set forth at page 8, line 10.

Claim 42 recites the ability to secure two cable supports together utilizing a plain hole in one and the thread form hole in the other. This utilization of the plain and thread form holes is described at the top of page 13 of the present specification.

Dependent claims 43 and 44 relate to this arrangement whereby one of the saddles becomes the nut, so that only a headed threaded fastener is required to secure two together. Claim 45 relates to the projecting tip opposite the vertically extending section with the holes being clear of the saddle and its projecting tip. Claims 46-48 relate to the flange arrangement at the obtuse angle with a radius between each flange and the center cylindrical section. In this manner, the flanges become part of the saddle surface and provide a smooth transition should the cable be pulled along the saddle in a direction axially of the saddle.

Claim 49 relates to the feature for extending a tie from the tip to the stem across the top of the saddle to confine the cables within the saddle without contact between the tie and bundle. The claim accordingly recites the combination between the saddle and tie which permits the bundle to be confined without engagement between the tie and bundle. This is exactly opposite the normal way a tie is employed. The tie may be cinched tight without cable contact.

Dependent claims 50 and 51 bring out the features of the use of the tie, while claim 52 includes the plastic tie in the combination.

Claims 53-56 are drawn specifically to the embodiment shown in Figure 13 whereby the structure edge to which the intermediate fastener is secured is a vertically extending drop wire or rod.

Drop wires or rods are common forms of hanging or suspending devices above a ceiling, for example, and, with the combination seen in Figure 13, not only can the cable support be positioned at any location vertically along the drop wire or rod, but the axis of the saddle may extend in substantially any horizontal direction. The intermediate fastener simply snaps on the drop wire or rod to position the cable saddle support at any desired location and to extend in any desired direction.

In view of the above amendments and the following comments, reconsideration of this application is respectfully requested.

The Examiner has rejected claim 1-4 and 10-12 as simply unpatentable over *Perrault et al.* patent 4,039,131. The patent to *Perrault et al.* shows a J-hook which has parallel flanges 14 and 15 which extend from a very short radius in a direction parallel to each other and perpendicular to the axis of the curved portion. The flanges in *Perrault et al.* do not act as portions of the saddle, nor do they extend at an obtuse angle as required by the claims. It should be noted that with the single large cable shown in *Perrault et al.*, the right angle corner, even as radiused, is to the cable relatively sharp. The flanges of *Perrault et al.* do not at all assist in supporting the cable, nor do they extend in a fashion to limit cable sag, cable bending, or cable indentation at the corner. It is noted that even though *Perrault et al.* describes the rounded corners 15 and 16, Figure 7 illustrates substantial indentation of the cable at the corners.

Moreover, the *Perrault et al.* hanger is not designed to be used with the variety of structural elements one is apt to encounter in an existing or new structure adapted to contain or to have installed substantial amounts of communications cabling. For example, Figures 1 and 2 of *Perrault et al.* illustrate the specially designed hook interfitting with a downcomer 29 secured to a bulkhead

or wall 35. Very few, if any, downcomers, bulkheads, or walls are found above a suspended ceiling. Figure 11 illustrates a support 85, while Figure 8 illustrates a square tube. The fastening to the square tube is shown in Figure 9 and to the support in Figure 12. Figure 10 illustrates a hook secured directly to a wall. It is noted that the fastener in Figure 9 has a square head to fit the square hole 27, while the screw of Figure 10 apparently has a round shank fitting in the square hole. The screw, however, is threaded in a tapped hole 67 in the wall. The tapped hole 67 would seem to indicate that the wall was metal. This comports with the sectioning of the drawing in *Perrault et al.*

It is believed apparent that the patent to *Perrault et al.* does not disclose applicant's claimed support or the many features or applications of the support. For example, in *Perrault et al.* the upwardly extending stem is approximately half the diameter of the saddle rather than twice. Moreover, when the cable 54 is in the saddle, the holes in the stem are either blocked or obscured, making access next to impossible.

Claims 5, 6, 8 and 9 have been rejected as unpatentable over *Perrault et al.* in view of *Garrett et al.* Apparently *Garrett et al.* is cited simply for the employment of tie 52 for securing conduits.

Heretofore cable bundles have been wrapped in ties. However, those ties are normally cinched tightly and can easily damage or pinch cables. In contrast, applicant's invention enables the tie to surround the cable bundle without exerting any pressure on the bundle. In fact, applicant's claims are limited to no contact between the tie and bundle. In *Garrett et al.* the conduit is in engagement with the tie, and the tie is wrapped as tightly as it can be. *Garrett et al.* simply does not teach or suggest the employment of a tie as set forth in applicant's claims, nor does *Perrault et al.* In fact, *Perrault et al.* has no place to accommodate the tie. Accordingly, reconsideration of the rejection of applicant's claims on *Perrault et al.* in view of *Garrett et al.* is respectfully requested.

With regard to claim 7, the patent to *Bruno* has been cited apparently simply for a showing of a plurality of holes. *Bruno* illustrates a pipe hanger which is secured to a wooden joist 24. The hanger includes a plurality of holes to receive nails by which the hanger is secured to the side of the joist.

The *Perrault et al.* bracket already has two holes, one being the square hole 27, while the other hole is the slot 18. However, neither has anything to do with a plastic tie or the application of a plastic tie to a bundle of low voltage communication cable. The Examiner indicates that to make one of the holes threaded is considered to be obvious to receive a threaded fastener. That overly broad statement or conclusion is not fair to the claim limitations. None of the references suggest using identical structures which may be secured to each other using a single threaded fastener with one of the structures acting as the nut.

Claims 13-15 have been rejected as unpatentable over *Perrault et al.* in view of *Cubit et al.* While *Cubit et al.* does disclose a plurality of hooks mounted on a strap which is secured between precast concrete planks, the hooks are simply supported by the tongue and slot connections. One can only imagine trying to pull a substantial bundle of communication cable over the hooks. It would damage not only the hanger structure but also the cable. Again, the addition of *Cubit et al.* to *Perrault et al.* cannot correct the basic deficiencies of *Perrault et al.*, nor does *Cubit et al.* provide any teaching of the specific limitations of applicant's claims.

Applicant's method claims 19, 20 and 27-30 have been rejected as unpatentable over *Perrault et al.* in view of *Urbain*. Claims 24 and 25 relating to the tie are rejected as unpatentable over *Perrault et al.* in view of *Urbain* and *Garrett et al.*

Claims 31-33 have been rejected as unpatentable over *Perrault et al.* and *Urbain* in view of *Cubit et al.*

The same comments with regard to *Perrault et al.* apply as indicated above. The patent to *Urbain* has nothing to do with communications cable and the

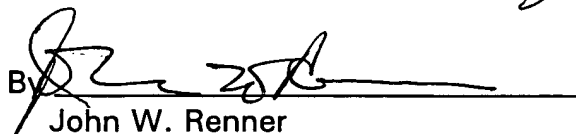
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problems encountered. It is noted that the articles being stored in *Urbain* are lengths of pipes, moldings, metal trimmed stock, and the like. Nothing stored in *Urbain* Figure 1 exhibits any degree of sag between the two relatively widely spaced hooks. *Urbain* is trying to provide a permanent type of rack simply to sort and hold material off the floor. In column 1, line 49, the device described is a storage rack. In line 24 of the same column, *Urbain* describes the loads as heavy as 300 pounds. *Urbain* has nothing to do with communications cable sag or the distribution and organization of such cables in a modern office, for example, equipped with all kinds of data communication equipment. *Urbain* simply is not related to *Perrault et al.*, or the problems of *Perrault et al.* *Urbain* is also not related to applicant's claimed invention or the particular structures and dimensions set forth. *Urbain* discloses sets of commonly spaced hooks in a storage rack. *Urbain* does not disclose the spacing or sag limitations set forth in applicant's method claims.

The addition of the *Cubit et al.* patent to the combination of *Perrault et al.* and *Urbain* does not correct any problem with those two references.

It is also believed apparent that the prior art cited and applied by the Examiner does not teach or suggest the limitations of applicant's added claims. In view of the foregoing and in the absence of further pertinent art, this application is submitted as now in condition for final allowance, early action to that effect being respectfully solicited.

Respectfully Submitted,
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